REMARKS

I. Status of claims

Claims 1-71 are pending in the present application. Claims 13-35, 48-55 and 66-69 have been withdrawn from further consideration with traverse, and claims 70-71 have been added. No new matter is believed to have been added by the new claims.

In the Office Action, the Examiner rejected claims 2, 8, 37, 44-45, 47 and 62 under 35 U.S.C. §112, ¶2, as being indefinite (though it appears the Examiner intended to reject claim 57 rather than 47 under this Section) and rejected claims 1-12, 36-47 and 56-65 as unpatentable under U.S.C. §102(e)/§103(a).

II. Objections to the abstract

The Abstract has been objected to "because in the abstract it is unclear what SW represents". (Page 2 of the Office Action). A new Abstract has been submitted herewith. In the new Abstract, "SW" has been changed to "software." In view of the new Abstract, the Examiner is respectfully requested to withdraw the objection.

III. Rejection under 35 U.S.C. §112, ¶2

Claims 2, 8, 37, 44, 57 and 62 have been amended in accordance with the helpful comments by the Examiner (e.g., GUI refers to graphical user interface and SW refers to software). No new matter is believed to have been added by the amendment. In addition, these

amendments relate only to formalities and do not relate to the scope of the amended claims, nor do they narrow the amended claims in any way.

In view of the amendments, the Examiner is respectfully requested to withdraw this rejection.

IV. Rejection Under 35 U.S.C. § 102(e)/§ 103(a)

A. Claims 1-11, 36-47 and 56-65 are not anticipated by Tan *et al.* at U.S.P.N. 6,263,255B1 ("the Tan patent")

The Examiner alleges that each and every feature of claims 1-11, 36-47 and 56-65 is disclosed by the Tan patent, and states:

> Tan teaches computer implemented factory automation including defining, installing, and administrating activity framework components; modeling components; use of controlling, monitoring, and tracking components. Tan also teaches plug and play components; creation and deletion of components; use of a history; control of semiconductor IC manufacturing; use of user and tool interfaces; use of databases and data structures; storing the software on a medium; context resolution; data analysis; use of a data manager; defining interactions between components; updating software; planning; and use of processing equipment and computers. See the abstract; figures; col. 2, line 58 to col. 3, line 48; col. 5, lines 15-67; col. 6, line 51 to col. 8, line 35; col. 9, lines 1-26; col. 11, lines 1-45; col. 12, lines 18-67; col. 13, lines 1-63; col. 14, lines 43-57; col. 15, line 19 to col. 16, line 17; col. 29, lines 58-64; and the claims. [Page 3 of the Office Action]

However, claim 1 of the present application explicitly recites "factory modeling lifecycle activity framework components." This feature requires that the recited step relates to the overall operation (e.g., control and monitoring) of a factory. In the above-cited excerpt of the Office

Action, the Examiner does not state that the Tan patent describes a method that includes steps that are directed to the "factory modeling lifecycle activity framework components." This is because the Tan patent does not describe it.

The aforementioned distinction becomes more apparent from the following. The software components described in the Tan patent are directed to only the APC framework. More specifically, the Tan patent explicitly teaches that its APC framework receives instructions from a Manufacturing Execution System (MES). (See, Col. 13, lines 35-44 and FIG. 8A.) The Tan patent does not teach or suggest any activities taking place in relation with the MES, other than simply receiving instructions from the MES. Thus, the Tan patent does not teach or suggest controlling and/or monitoring the MES.

In contrast, the recited feature "factory modeling lifecycle activity framework components" performs monitoring and controlling software that includes, among others, the factory's MES. This is explicitly described in the specification of the present application (from page 12, line 22 to page 13, line 8).

Hence, Applicants believe claim 1 (and independent claims 36 and 56, which recite similar features for the purpose of distinguishing over the Tan patent) of the present application is patentably distinguishable from the Tan patent. With respect to claims 2-11 (and claims 37-47 and 57-65), since they are dependent claims, they are also patentably distinguishable from the Tan patent. Accordingly, claims 1-11, 36-47 and 56-65 are not anticipated by the Tan patent.

B. Claim 12 is not obvious over the Tan patent in view of by Mashruwala *et al* (U.S.P.N. 5,295,242B1; "the Mashruwala patent")

The Examiner conceded that the recited feature of claim 12 is not described in the Tan patent. The Examiner then took the position that the missing feature is taught or suggested in the Mashruwala patent. However, the Mashruwala patent also fails to describe the above-described feature of the "factory modeling lifecycle activity framework components."

Accordingly, the combination of the Tan and Mashruwala patents, alone or in combination, fails to teach or suggest each and every claimed feature of claim 12. Hence, claim 12 is not obvious over the Tan patent in view of the Mashruwala patent.

Applicants believe all pending claims, including the new claims 70-71, are in condition for allowance. Reconsideration of these claims is respectfully requested.

AUTHORIZATION

The Commissioner is hereby authorized to charge any additional fees which may be required for this Amendment, or credit any overpayment to deposit account no. 08-0219. In the event that an extension of time is required, or which may be required in addition to that requested in a petition for an extension of time, the Commissioner is requested to grant a petition for that extension of time which is required to make this response timely and is hereby authorized to charge any fee for such an extension of time or credit any overpayment for an extension of time to deposit account no. 08-0219.

Respectfully submitted,
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Appendix B: Marked-up copy of the Abstract

ABSTRACT

The present invention provides a novel distributed factory system framework including a novel factory automation lifecycle (200) having lifecycle activities for SW developing and integrating (210), installing and administrating (220), factory modeling (230), manufacturing planning (240), manufacturing controlling, monitoring and tracking (250) and analyzing of manufacturing results (260). The factory lifecycle comprises framework components. The distributed factory system framework also includes application components and software [SW] building blocks. The framework components are adapted for managing the application components, while the application components are utilized to provide instructions for managing a process such as a wafer fab. The building blocks are adapted for forming or modifying framework and application components. The distributed factory system framework provides computer implemented methods for integrating processing systems and facilitates process and equipment changes.

Appendix D: Marked-up copy of claims

2. (Amended) The method of claim 1, wherein defining administrating lifecycle activity framework components comprises defining one or more framework components selected from the group consisting of a security component, a graphical user interface (GUI) console component, a performance and license management component and a saga management component.

8. (Amended) The method of claim 1 additionally defining a software (SW) developing and integrating lifecycle activity.

37. (Amended) The apparatus of claim 36, wherein the administrating lifecycle activity framework components comprise one or more framework components selected from the group consisting of a security component, a graphical user interface (GUI) console component, a performance and license management component and a saga management component.

44. (Amended) The apparatus of claim 36, wherein the first data structure comprises:

a) a digitally coded fourth data structure including a graphical user interface (GUI) console component; and

b) a digitally coded fifth data structure including a configuration management component.

57. (Amended) The device of claim 56, wherein the administrating lifecycle activity framework components comprise one or more framework components selected from the group consisting of a security component, a graphical user interface (GUI) console component, a performance and license management component and a saga management component.

62. (Amended) The device of claim 56 comprising a plurality of framework components which are adapted for interacting with a graphical user interface (GUI) console framework component.